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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/669,664	09/26/2000	Ryuji Nurishi	865.4499	4752

5514 7590 07/21/2003

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EXAMINER

RAIZEN, DEBORAH A

ART UNIT	PAPER NUMBER
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2873

DATE MAILED: 07/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/669,664

Applicant(s)

NURISHI, RYUJI

Examiner

Deborah A. Raizen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 is/are allowed.
- 6) ☒ Claim(s) 12-15, 17, 18/12-15, 17 and 19/12-15, 17 is/are rejected.
- 7) ☒ Claim(s) 16, 18/16, and 19/16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 12, 13, and 15 are objected to because of the following informalities: In line 6, the word “compares” should be replaced with “comprises” or another appropriate word.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 13, 14, 18/13,14 and 19/13,14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. Specifically, the limitation “wherein an amount of motion of said image-stabilizing means is constant regardless of variation of magnification,” is not supported by the original disclosure, as explained below.

4. On page 29, lines 8-16 (as well as in the corresponding lines as amended in Amendment A, paper #7, of December 20, 2002), the original disclosure does support a limitation that “... before and after the shift of the focal length due to the insertion or detachment of the extender conversion optical system 4E, the amount of decentering E4s of the image-stabilizing lens unit required for obtaining a desired correction angle  $\theta$  also does not change...” However, these lines

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do not support an amount of motion that is constant even when the variator and compensator (the second and third lens groups as originally designated) move during zooming. In fact, lines 8-16 suggest that when the disposition of lens units on the object side of the image-stabilizing lens unit does change, the required amount of decentering changes.

Also, even if applicant can show that there is support for a limitation that the amount of motion does not vary as a result of the zooming movement of the variator and compensator (or if applicant amends claim 13 to recite that the amount of motion is constant when an extender is inserted or detached), the amount of motion is not constant because it depends at least on a predetermined amount of image shake correction and on the primary original point shift (equation (m) on page 23) or on a desired correction angle (page 29, lines 13-14).

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 12, 13, 14, 18/12,13, and 19/12,13 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki (6,025,962, cited in applicant's IDS, paper #4). In regard to claim 12, Suzuki discloses a zoom lens (Fig. 16, embodiment 6) comprising, in order from an object side

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to an image side: a first lens unit (G1) comprising a plurality of lenses (3 lens elements are shown), said first lens unit being arranged to move during variation of magnification (the arrow shows its movement); and a second lens unit (G2), wherein said second lens unit comprises (understood as comprises) an image-stabilizing means (the whole of the second lens unit, as indicated by the vertical double arrow labeled anti-vibration), and an image is displaced by moving said image-stabilizing means (col. 21, bottom of Table 8), and wherein said second lens unit is stationary during variation of magnification (the broken vertical line in Fig. 16 shows that the second lens unit is stationary).

In regard to claim 13, Suzuki discloses a zoom lens (Fig. 16, embodiment 6) comprising, in order from an object side to an image side: a first lens unit (G1) comprising a plurality of lenses (3 lens elements are shown), said first lens unit being arranged to move during variation of magnification (the arrow shows its movement); and a second lens unit (G2), wherein said second lens unit comprises (understood as comprises) an image-stabilizing means (the whole of the second lens unit, as indicated by the vertical double arrow labeled anti-vibration), and an image is displaced by moving said image-stabilizing means (col. 21, bottom of Table 8), and wherein an amount of motion of said image-stabilizing means is constant regardless of variation of magnification (in col. 21, Table 8, the same amount of movement for the second lens group is disclosed for both the wide-angle and telephoto ends, as is further shown by the different amounts disclosed of movement of the image).

In regard to claim 14, in the Suzuki zoom lens, the second lens unit is stationary during variation of magnification (the broken vertical line in Fig. 16 shows that the second lens unit is stationary).

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In regard to claims 18/12,13, in the Suzuki zoom lens, the image-stabilizing means is an image-stabilizing lens subunit (col. 4, lines 1-8, especially lines 4-5, disclose that the image-stabilizing means can be a lens subunit of the second lens unit).

In regard to claims 19/12,13, Suzuki discloses a photographing apparatus (camera, col. 4, lines 1-4) comprising: a zoom lens according to claim 18 (the camera is disclosed to hold any of the Suzuki embodiments); and a casing holding said zoom lens (a camera is a casing holding a lens).

7. Claims 15, 17, 18/15,17, and 19/15,17 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoshikawa (5,966,246). In regard to claim 15, Yoshikawa discloses a zoom lens (Fig. 1) comprising, in order from an object side to an image side: a first lens unit (labeled "second group") comprising a plurality of lenses (four lens elements are shown), said first lens unit being arranged to move during variation of magnification (as shown by the line and the label "variable power"); and a second lens unit (labeled "third group"), wherein said second lens unit comprises (understood as comprises) an image-stabilizing means (the whole lens unit corrects for movement of the image plane during zooming so as to maintain optical performance, abstract, lines 7-12. Although the lens unit is a conventional compensator and not the kind of image-stabilizing means disclosed in the current application, it is an image-stabilizing means because it stabilizes the image), and an image is displaced by moving said image-stabilizing means (abstract, lines 7-9), and wherein an extender optical system (either 3a or 3b) is insertably, and detachably disposed (col. 4, lines 22-36) in a position on the image side of said image-stabilizing

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means (Fig. 1), the insertion of said extender optical system varying the focal length of said zoom lens (col. 4, lines 22-36).

8. In regard to claim 17, Yoshikawa discloses a zoom lens (Fig. 1) comprising: an extender optical system (either 3a or 3b); and an image-stabilizing means (labeled "third group"), wherein an image is displaced by moving said image-stabilizing means (abstract, lines 7-9), wherein said extender optical system is insertably and detachably disposed (col. 4, lines 22-36) in a position on the image side of said image-stabilizing means (Fig. 1), the insertion of said extender optical system varying the focal length of said zoom lens (col. 4, lines 22-36).

9. In regard to claims 18/15, 17, in the Yoshikawa zoom lens, the image-stabilizing means is an image-stabilizing lens subunit (the third group is a lens unit that can be labeled a lens subunit of the zooming lens unit made up of the second and third groups).

10. In regard to claims 19/15, 17, Yoshikawa discloses a photographing apparatus (camera, col. 1, lines 50-52) comprising: a zoom lens according to claim 18 (col. 1, lines 50-52); and a casing holding said zoom lens (a camera is a casing holding a lens).

11. Claims 17, 18/17 and 19/17 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakamura et al. (6,104,432). In regard to claim 17, Nakamura discloses a zoom lens (Fig. 4A) comprising: an extender optical system (the zoom lens, or master lens, made up of groups Gr2 through Gr4); and an image-stabilizing means (the afocal unit made up of lens elements 26 and 47 of Gr1, col. 6, lines 28-33; the afocal unit is part of wide-angle converter Gr1, col. 5, lines 50-51), wherein an image is displaced by moving said image-stabilizing means (image-stabilizing means inherently function by moving to displace an image), wherein said extender optical

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system is insertably and detachably disposed (because a wide-angle converter is inherently insertable in and detachable from a master lens, the master lens to which the wide-angle converter is attached is insertably and detachably disposed on the image side of the wide-angle converter) in a position on the image side of said image-stabilizing means (Fig. 4A: the zoom lens of groups Gr2 through Gr4 is on the image side of the image-stabilizing means, lens elements 26 and 47), the insertion of said extender optical system varying the focal length of said zoom lens (the focal length of the wide-angle converter, which can be calculated from Fig. 4B, is not the same as that of the focal length of the whole system with the extender optical system Gr2-Gr4, as disclosed in Fig. 4D).

In regard to claim 18/17, in the Nakamura zoom lens, the image-stabilizing means is an image-stabilizing lens subunit (lens elements 26 and 47 form an afocal unit that is a lens subunit of lens unit Gr1, col. 6, lines 28-33).

In regard to claim 19/17, Nakamura discloses a photographing apparatus (camera, title) comprising: a zoom lens according to claim 18 (col. 6, line 30); and a casing holding said zoom lens (a camera is a casing holding a lens).

12. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Ono (6,225,614). Ono discloses a zoom lens (Figs. 4A and 4B and col. 11, line 62 to col. 14, line 20) comprising, in order from an object side to an image side: a first lens unit (lens unit 84) comprising a plurality of lenses (col. 12, lines 16-17), said first lens unit being arranged to move during variation of magnification (col. 12, lines 50-52 and Figs. 4A and 4B); and a second lens unit



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(10), wherein said second lens unit compares (understood as “comprises”) an image-stabilizing means (10), and an image is displaced by moving said image-stabilizing means (moving lens 10 in the direction shown by the double arrow would inherently displace an image because the light rays incident on lens 10 would have a different angle with the normal to the surface), and wherein said second lens unit is stationary during variation of magnification (lens unit 10 has the same position in figures 4A and 4B. Also, the double arrows show that lens unit 10 does not move in the optical axis direction. Also, the perpendicular motion is controlled by motors 14a, not shown, and 14b, to the extent that the perpendicular position of lens unit 10 could even be determined from the rotation numbers of the motors [col. 19, lines 54-57]. The motors, in turn, respond to drive signals from CPU 3, which bases its calculation on the output of the position detection devices 20a and 20b [disclosure for all the embodiments, col. 9, lines 11-14 and 38-42]. This detection of position occurs at the telephoto end and at the wide-angle end [col. 13, lines 21-30]. Therefore, the absence of any disclosure that motors 14a and 14b move lens unit 10 during variation of magnification further indicates that lens unit 10 does not move perpendicularly during variation of magnification.).

### ***Double Patenting***

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

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provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 15, 17, and 18/15,17 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,560,016. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 1 of the patent has all the limitations of claims 15, 17, and 18/15,17.

15. In regard to claim 15, claim 1 of the patent has the limitations: a zoom lens (line 1) comprising, in order from an object side to an image side (lines 1-2): a first lens unit comprising a plurality of lenses (the second and third lens units of the patent, lines 4-8), said first lens unit being arranged to move during variation of magnification (lines 4-8); and a second lens unit (the fourth lens unit of the patent, line 9), wherein said second lens unit comprises an image-stabilizing means (an image-stabilizing lens subunit, line 14), and an image is displaced by moving said image-stabilizing means (lines 17-19), and wherein an extender optical system (a focal-length changeover subunit, lines 10-11) is insertably and detachably disposed (lines 11-12) in a position on the image side of said image-stabilizing means (equivalent to the limitation that the image-stabilizing means is on the object side of the extender, lines 14-15), the insertion of said extender optical system varying the focal length of said zoom lens (line 13).

In regard to claim 17, claim 1 of the patent has the limitations: a zoom lens comprising (line 1): an extender optical system (a focal-length changeover subunit, lines 10-11); and an

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image-stabilizing means (an image-stabilizing lens subunit, line 14), wherein an image is displaced by moving said image-stabilizing means (lines 17-19), wherein said extender optical system is insertably and detachably (lines 11-12) disposed in a position on the image side of said image-stabilizing means (equivalent to the limitation that the image-stabilizing means is on the object side of the extender, lines 14-15), the insertion of said extender optical system varying the focal length of said zoom lens (line 13).

In regard to claims 18/15 and 18/17, claim 1 of the patent has the limitations: a zoom lens according to any one of claims 12 through 17 (claim 1 of the patent has the limitations of claims 15 and 17, as explained above), wherein said image-stabilizing means is an image-stabilizing lens subunit (line 14).

16. Claims 19/15 and 19/17 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 14 of U.S. Patent No. 6,560,016.

Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 14 of the patent, with its base claim 1 of the patent, has all the limitations of claims 19/15,17. Claim 14 of the patent has all the limitations: a photographing apparatus comprising (line 1): a zoom lens according to claim 18 (as explained above, base claim 1 of the patent has all the limitations of claims 15 and 17 and of claims 18/15 and 18/17; claim 14 of the patent includes a zoom lens according to claim 1 of the patent, line 2); and a casing holding said zoom lens (line 3).

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*Allowable Subject Matter*

17. Claims 16, 18/16, and 19/16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. The following is a statement of reasons for the indication of allowable subject matter: The prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of claim 16, 18/16, and 19/16 in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper.

19. The prior art fails to teach a combination of all the features in claim 16. For example, these features include the detailed structure recited in claim 15 and also the limitations that the second lens unit includes the extender optical system and that the second lens unit is stationary during variation of magnification. In the Yoshikawa zoom lens (the reference on which the rejection of claim 15 above is based), the extender optical system is included in the fourth group of Yoshikawa so that it is not included in the second lens unit, and the third group of Yoshikawa (the second lens unit) moves during variation of magnification.

Claims 18/16 and 19/16 depend on claim 16 and therefore have allowable subject matter as well.

20. Claims 1-11 are allowed.

For an examiner's statement of reasons for allowance, see paper #8. However, the reasons stated in paper #8 require the following additional clarification: Although Suzuki (6,025,962, cited in applicant's IDS, paper #4 and relied upon for rejection of claim 1 in paper 6)

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does disclose that the fourth lens group can be stationary (col. 6, line 54-57), the rejection relied on including the fifth lens group of Suzuki in the fourth lens unit so that the fourth lens unit has positive power. Suzuki does not disclose that the fifth lens group can be made stationary. No other reference could be found that has all the limitations of claim 1 or that renders claim 1 obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Suzuki (5,627,677) provides an example of a zoom lens that does not meet the limitations of claims 15 and 17. The extender optical system includes the image-stabilizing means, so that the extender optical system is not disposed on the image side of the image-stabilizing means. The master lens is on the object side, so that it too does not meet the limitation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah A. Raizen whose telephone number is (703) 305-7940. The examiner can normally be reached on Monday-Friday, from 8:00 a.m. to 5 p.m. EST.

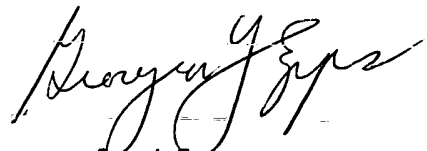
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on (703) 308-4883. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

dar  
July 11, 2003



Georgia Epps  
Supervisory Patent Examiner  
Technology Center 2800